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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,735	11/19/2003	Christopher R. Wagstrom	37210-8004.US00	8693

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PERKINS COIE LLP
P.O. BOX 2168
MENLO PARK, CA 94026

EXAMINER	
STEELE, AMBER D	
ART UNIT	PAPER NUMBER
1639	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/717,735	WAGSTROM ET AL.	
	Examiner	Art Unit	
	Amber D. Steele	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) *5,8-10,12,14,15,22-24,27,28,32-34 and 36-38* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7,11,13,16-21,25,26,29,30,31 and 35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 1, 2007 has been entered.

Status of the Claims

2. Claims 41-81 were cancelled by Applicants in the preliminary amendment received on November 11, 2003.

Claims 39-40 were cancelled by Applicants in the amendment received on August 29, 2005.

Claims 1-38 are currently pending.

Claims 1-4, 6-7, 11, 13, 16-21, 25-26, 29-31, and 35 are currently under consideration.

Election/Restriction

3. The species election is reiterated: variable and constant domains of the light chain with a leader sequence as the species of first polypeptide, a "disordered" region cleavable by urokinase (i.e. must contain Arg-Val) as the species of second polypeptide, variable and constant domains of the heavy chain as the species of third polypeptide, M13 as the species of expression vector which can be propagated in E. coli, and coat protein III as the species of anchoring peptide.

Priority

4. The present application claims the benefit of U.S. provisional application 60/427,736 filed November 19, 2002.

Information Disclosure Statement

5. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

6. Claim 31 is objected to because of the following informalities: the claim states that the cleavable peptide sequence includes TGF-β, but TGF-β does not actively cleave peptides or proteins. Either deletion of TGF-β from the Markush group or amending the claim to read "a cleavage site comprising TGF-β or for urokinase..." is suggested. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-4, 6-7, 11, 13, 16-21, 25-26, 29-31, and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a **written description** rejection.

With regard to the written description requirement, the attention of the Applicant is invited to the decision of The Court of Appeals for the Federal Circuit, (hereinafter "CAFC"), which held that a "written description of an invention involving a chemical genus, like a description of a chemical species, 'requires a precise definition, such as by structure, formula [or] chemical name,' of the claimed subject matter sufficient to distinguish it from other materials." *University of California v. Eli Lilly and Co.*, 43 USPQ2d 1398, 1405 (1997), quoting *Fiers v. Revel,* 25 USPQ2d 1601, 1606 (Fed. Cir. 1993) (bracketed material in original) [The claims at issue in *University of California v. Eli Lilly* defined the invention by function of the claimed DNA (encoding insulin)] (the case is referred to herein as "*Lilly*").

Additionally, it is noted that written description is legally distinct from enablement: "Although the two concepts are entwined, they are distinct and each is evaluated under separate legal criteria. The written description requirement, a question of fact, ensures that the inventor conveys to others that he or she had possession of the claimed invention; whereas, the enablement requirement, a question of law, ensures that the inventor conveys to others how to make and use the claimed invention." See 1242 OG 169 (January 30, 2001) citing *University of California v. Eli Lilly & Co.*

Although directed to DNA compounds, this *Eli Lilly* holding would be deemed to be applicable to any compound or a generic of compounds; which requires a representative sample

of compounds and/or a showing of sufficient identifying characteristics; to demonstrate possession of the compound or generic(s). In this regard, applicant is further referred to *University of California v. Eli Lilly & Co.*, 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997); "Guidelines for Examination of Patent Applications Under the 35 USC 112, first paragraph, 'Written Description' Requirement" published in 1242 OG 168-178 (January 30, 2001); and *Univ. Of Rochester v G. D. Searle and Co.* 249 F. Supp. 2d 216 (W.D.N.Y. 2003) affirmed by the CAFC on February 13, 2004 (03-1304) publication pending.

Additionally, *Lilly* sets forth a two part test for written description:

A description of a genus of cDNA's may be achieved by means of a recitation of: a representative number of cDNA's, defined by nucleotide sequence, falling within the scope of the genus OR of a recitation of structural features common to the members of the genus. See *Regents of the University of California v. Eli Lilly & Co.* 119 F.3d 1559 (Fed. Cir. 1997) at 1569.

Finall y, University of California v. Eli Lilly and Co., 43 USPQ2d 1398, 1404, 1405 held that:

> ...To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); In *re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (" [T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966.

Additionally, Cf. University of Rochester v G.D. Searle & Co., Inc., Monsanto Company, Pharmacia Corporation, and Pfizer Inc., No. 03-1304, 2004 WL 260813 (Fed. Cir., Feb. 13, 2004) held that:

Regardless whether a compound is claimed per se or a method is claimed that entails the use of the compound, the inventor cannot lay claim to that subject matter unless he can provide a description of the compound sufficient to distinguish infringing compounds from non-infringing compounds, or infringing methods from non-infringing methods.

In the present instance, the specification does not disclose a single expression vector or a single antibody for either the first or third polypeptide segment. In addition, the specification discloses one sequence (i.e. SEQ ID NO: 1 Asp Pro) for the second polypeptide segment. The "laundry lists" of potential bacteriophages (e.g. expression vectors) and potential proteolytic agents which can cleave the second polypeptide segment do not provide adequate written description. MPEP § 2163 states "a "laundry list" disclosure of every possible moiety does not constitute a written description of every species in a genus because it would not "reasonably lead" those skilled in the art to any particular species (see Fujikawa v. Wattanasin, 93 F.3d 1559, 1571, 39 USPQ2d 1895, 1905 (Fed. Cir. 1996))". The previously mentioned disclosure for the expression vector as claimed is not representative of the claimed genus of an "expression vector comprising a first polypeptide segment, a second polypeptide segment, and a third polypeptide segment"; nor do the claims recite sufficient structural feature(s) which is(are) common to members of the genus sufficient to demonstrate possession of the genus. The instant claims define an expression vector as being capable of "expressing a multimeric polypeptide anchored on a surface of a genetically replicable package formed by a host...[and] encoding a polypeptide

sequence". Therefore, the "expression vector" is only defined by functional properties. The instant claims define a second polypeptide segment as a "cleavable peptide sequence cleavable by a proteolytic agent". Therefore, the claimed "second polypeptide segment" is only defined by functional properties (e.g. "capable of cleavage by a proteolytic agent"). The CAFC held that a functional definition is insufficient to adequately describe a product, therefore, an adequate written description not based on a functional definition is necessary.

The Examiner further notes the present claims stated by Applicant are broader in scope that those that were held to be impermissible in *Lilly* because, unlike *Lilly*, Applicants' claims encompass a vast number of "expression vectors", "first polypeptide segments", "second polypeptide segments", and "third polypeptide segments". The scope of these claims include a vast number of sequences because the specification and claims do not place any limit on the number of components (e.g. open language thus the expression vector is not limited to polynucleotides encoding the three polypeptide segments), the type of components (e.g. the first, second, and third polypeptides could encode anything), or the length of the components (e.g. 2mers, 50mers, 100mers, 200mers, etc.). Furthermore, the specification and claims do not place any limit on the manner in which the components might be connected. Therefore, Applicant is using an inadequately described "polypeptide segments" to inadequately describe the claimed "expression vector". Consequently, there is no teaching that would allow a person of skill in the art to determine *a priori* that the Applicant was in possession of the full scope of the claimed invention at the time of filing because there is no common structural attributes that can link together all of the claimed expression vectors and first, second, and third polypeptide segments.

While the general knowledge and level of skill in the art for molecular biology related to construction of expression vectors is high, this knowledge and level of skill does not supplement the omitted description because specific, not general, guidance is needed for the "expression vector". Since the disclosure fails to describe the common attributes or characteristics that identify all of the members of the genus or even a substantial portion thereof, and because the genus is vast and highly variant (e.g. conservatively billions of first, second, or third polypeptide segments and therefore conservatively billions of possible expression vectors), the limited examples (e.g. laundry lists, no working examples) is insufficient to teach the entire genus.

The specification discloses only limited examples that are not representative of the claimed genus of an "expression vector"; nor do the claims recite sufficient structural feature(s) which is(are) common to members of the genus sufficient to demonstrate possession of the genus. Therefore, the teachings in the specification are general teachings relating without guidance as to the individual components of the product. In addition, there are numerous first, second, and third polypeptide segments that could be employed in the invention with little direction or guidance for one of skill in the art to practice the claimed invention. The expedient statements in the specification do not relate to an adequate disclosure or how to make and use the claimed invention. Consequently, one of skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to adequately describe the vast genus. Thus, Applicant does not appear to be in possession of the claimed genus.

Maintained Rejections

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejection - 35 USC § 102

10. Claims 1-4, 6-7, 11, 13, 16-21, 25-26, 29-31, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Ladner *et al.* U.S. Patent No. 5,223,409 issued June 29, 1993.

Ladner *et al.* teach binding proteins displayed on the outer surfaces of filamentous phage or cells (please refer to column 1, lines 40-52). Ladner *et al.* teach that the display system may be utilized to develop antibodies (please refer to column 15, lines 65-68). In addition, Ladner *et al.* teach V_L-linker-V_H as single-chain antigen-binding fragment and V_L-C_L bound to V_H-C_{H1} as fragment antibodies (e.g. present claims 1-4 and 6-7; please refer to column 15, lines 34-64). Furthermore, Ladner *et al.* teach the display system as a binding domain linked to a signal sequence (e.g. OmpA and present claim 17; please refer to column 61, lines 39-53, column 62, lines 31-33, and column 63, lines 28-48) and a coat protein (e.g. M13 gene III and present claims 18 and 25; please refer to column 51, line 51 and column 54, lines 48-50) so that the expression product is transported to the inner membrane of the host cell (e.g. *E. coli* and present claims 25 and 35; please refer to column 56, lines 6-14 and column 61, lines 21-23) and trapped until the single-stranded DNA of the nascent phage particle collects both the wild type coat protein and the hybrid protein from the lipid bilayer and packages the hybrid protein into the surface sheath of the filamentous phage (e.g. M13 and present claims 19-21 and 25-26; please refer to column 54, lines 37-38 and column 55, lines 36-60) thereby exposing the hybrid protein on the replicable genetic package (please refer to column 51, lines 33-68 and column 52, lines 1-11). Lander *et al.*

also teach the use of flexible linkers that encode a recognition site for a specific protease including Factor Xa (e.g. present claims 11, 13, 16 and 29-31, please refer to column 57, lines 39-59, column 58, lines 1-18, column 70, lines 64-68, column 71, lines 1-5, and column 73, lines 20-40). Therefore, one of ordinary skill in the art would have anticipated the present invention of claims 1-4, 6-7, 11, 13, 16-21, 25-26, 29-31, and 35 in view of the teachings of Ladner *et al.*

Arguments and Response

11. Applicants' argument directed to the rejection under 35 USC 102(b) as being anticipated by Ladner *et al.* U.S. Patent No. 5,223,409 issued June 29, 1993 for claims 1-4, 6-7, 11, 13, 16-21, 25-26, 29-31, and 35 was considered but are not persuasive for the following reasons.

Applicants allege that Ladner et al. does not teach the claim limitation of "a first segment associates with a third segment to form a multimeric polypeptide".

Applicants' arguments are not convincing since the teachings of Ladner et al. anticipate the expression vector of the instant claims. In response to applicant's argument that Ladner et al. does not teach "a first segment associates with a third segment to form a multimeric polypeptide", a recitation of the intended use of the claimed invention (e.g. the expression vector is utilized to express a first polypeptide segment associated with a third polypeptide segment to form a multimeric polypeptide) must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. For example, Ladner et al. teach expression vectors encoding antibody heavy and light chains which are art recognized as being capable of forming multimeric polypeptides.

Claim Rejections - 35 USC § 103

12. Claims 1-4, 6-7, 11, 13, 16-21, 25-26, 29-31, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladner *et al.* U.S. Patent No. 5,223,409 issued June 29, 1993 and Goers *et al.* U.S. Patent No. 4,867,973 issued September 19, 1989.

Ladner *et al.* teach binding proteins displayed on the outer surfaces of filamentous phage or cells (please refer to column 1, lines 40-52). Ladner *et al.* teach that the display system may be utilized to develop antibodies (please refer to column 15, lines 65-68) as further evidenced by Ladner *et al.* (U.S. Patent No. 4,949,778 issued August 7, 1990; column 8, lines 62-67, column 15, lines 45-52, column 33, lines 56-68, and column 34, lines 1-57). In addition, Ladner *et al.* teach V_L-linker-V_H as single-chain antigen-binding fragment and V_L-C_L bound to V_H-C_{H1} as fragment antibodies (e.g. present claims 1-4 and 6-7; please refer to column 15, lines 34-64). Furthermore, Ladner *et al.* teach the display system as a binding domain operably linked to a signal sequence (e.g. OmpA and present claim 17; please refer to column 61, lines 39-53, column 62, lines 31-33, and column 63, lines 28-48) and a coat protein (e.g. M13 gene III and present claims 18 and 25; please refer to column 51, line 51 and column 54, lines 48-50) so that the expression product is transported to the inner membrane of the host cell (e.g. *E. coli* and present claims 25 and 35; please refer to column 56, lines 6-14 and column 61, lines 21-23) and trapped until the single-stranded DNA of the nascent phage particle collects both the wild type coat protein and the hybrid protein from the lipid bilayer and packages the hybrid protein into the surface sheath of the filamentous phage (e.g. M13 and present claims 19-21 and 25-26; please refer to column 54, lines 37-38 and column 55, lines 36-60) thereby exposing the hybrid protein on the replicable genetic package (please refer to column 51, lines 33-68 and column 52, lines 1-

11). Lander *et al.* also teach the use of flexible linkers that encode a recognition site for a specific protease including Factor Xa (e.g. present claims 11, 13, 16 and 29-31, please refer to column 57, lines 39-59, column 58, lines 1-18, column 70, lines 64-68, column 71, lines 1-5, and column 73, lines 20-40).

However, Lander *et al.* do not teach a linker cleavable by urokinase.

Goers et al. *et al.* teach attachment of a therapeutic agent to antibodies via a linker which may be cleavable by urokinase (e.g. please refer to column 3, lines 14-31). Goers *et al.* further teach that the linker can be an amine, a branched linker, proteolytic peptide linkers cleavable by urokinase, or a linker may have a spacer and a cleavable portion of a random construction (e.g. present claim 11, 29-31; please refer to columns 21-22, Tables III-V and VII-VIII, Example: Series IV-V). Therefore, Goers *et al.* specifically teaches a urokinase cleavable linker.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the antigen-binding polypeptide display system of Ladner *et al.* and incorporate the urokinase peptide cleavage sequences of Goers *et al.*

One having ordinary skill in the art would have been motivated to do this because Goers *et al.* teaches that the linkage of the therapeutic agent to the antibody may interfere with antigen binding and potentially reduce the effectiveness of the therapeutic system, therefore, the use of a cleavage site to release the therapeutic agent from the antibody would be beneficial (please refer to column 4, lines 7-27 of Goers *et al.*). Furthermore, Lander *et al.* teach the use of flexible linkers that encode a recognition site for a specific protease including Factor Xa (e.g. present claims 16 and 30-31, please refer to column 57, lines 39-59, column 58, lines 1-18, column 70, lines 64-68, column 71, lines 1-5, and column 73, lines 20-40). Therefore, a urokinase cleavable

peptide linker taught by Goers *et al.* could be utilized to increase antigen binding by the proteins displayed by genetically replicable packages taught by Ladner *et al.*

There is a reasonable expectation of success in the modification of the antibody display system taught by Ladner *et al.* with the urokinase cleavage sequence of Goers *et al.* because of the examples in Goers *et al.* showing the success of urokinase cleavable linkers joining antibodies to therapeutic agents or cells (please refer to sections 9.1-9.4 and 10.2-10.4 in Goers *et al.*).

Therefore, the modification of the antibody display system by Lander *et al.* with the urokinase cleavable sequence by Goers *et al.* would render the instant claims *prima facie* obvious.

Arguments and Response

13. Applicants' argument directed to the rejection under 35 USC 103(a) as being unpatentable over Ladner *et al.* U.S. Patent No. 5,223,409 issued June 29, 1993 and Goers *et al.* U.S. Patent No. 4,867,973 issued September 19, 1989 for claims 1-4, 6-7, 11, 13, 16-21, 25-26, 29-31, and 35 was considered but was not found persuasive for the following reasons.

Applicants allege that Ladner et al. does not teach the claim limitation of "a first segment associates with a third segment to form a multimeric polypeptide".

Applicants' arguments are not convincing since the teachings of Ladner et al. anticipate the expression vector of the instant claims. In response to applicant's argument that Ladner et al. does not teach "a first segment associates with a third segment to form a multimeric polypeptide", a recitation of the intended use of the claimed invention (e.g. the expression vector is utilized to express a first polypeptide segment associated with a third polypeptide segment to

form a multimeric polypeptide) must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. For example, Ladner et al. teach expression vectors encoding antibody heavy and light chains which are art recognized as being capable of forming multimeric polypeptides.

Double Patenting

14. Claims 1, 11, 13, 16, 29-30, and 35 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18-20 and 24-25 of U.S. Patent No. 7,138,253. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the present invention and the inventions as claimed in U.S. Patent 7,138,253 are drawn to expression vectors comprising nucleic acids encoding a protein of interest/first polypeptide segment, a protease-sensitive linker/cleavable second polypeptide segment, and a peptide/third polypeptide segment.

For present claims 1, 11, 13, 16, and 29-30, U.S. Patent 7,138,253 claims a vector comprising nucleic acids encoding a protein of interest (i.e. first polypeptide segment), a protease-sensitive linker (i.e. a second polypeptide segment; enzymatic proteolytic agent, possible to cleave, proteases cleave peptides and proteins at various sequences which may be known/specific or unknown/disordered), and a peptide (i.e. third polypeptide segment; please refer to claims 18-20 and 24).

For present claim 35, U.S. Patent 7,138,253 claims expressing the vector in a host cell (please refer to claim 25).

Future Communications

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amber D. Steele whose telephone number is 571-272-5538. The examiner can normally be reached Monday through Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Schultz can be reached on 571-272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ADS
April 18, 2007

MARK L. SHIBUYA
PRIMARY EXAMINER